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STRIVE *Learning Series*

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STRIVE (**Supporting Transformation by Reducing Insecurity and Vulnerability with Economic Strengthening**) is a 6.5-year, \$16 million cooperative agreement, managed by FHI 360 and funded by the USAID Displaced Children and Orphans Fund, in close collaboration with the USAID Microenterprise Development Office. STRIVE implements market-led economic strengthening initiatives in conflict-affected countries and examines their effects on vulnerable children, aiming to address current knowledge gaps on effective approaches to reducing the vulnerability of children and youth. STRIVE is implemented through four country-based programs in the Philippines, Afghanistan, Mozambique, and Liberia. The lessons learned from the program in each of the host countries are evaluated with the aim of establishing best practices for similar interventions promoting sustainable, market-based approaches to poverty in developing countries. Find out more about STRIVE and the FIELD-Support LWA at www.microlinks.org/strive



VSL group opening the savings box (Photo credit: Save the Children)

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STRIVE Mozambique

Background and Context

Implemented by Save the Children between 2009 and 2012, STRIVE Mozambique aimed to strengthen household economic stability through participation in village savings and loan (VSL) groups and rotating shared labor schemes, and to examine the effects of participation in those activities on household food security and child nutrition.

Since the end of the civil war in 1992, Mozambique has maintained steady economic growth, but it remains one of the world's poorest countries, near the bottom of the United Nations Human Development Index (185 out of 187 as of the last ranking in 2012). In Nampula Province, where the project was implemented,

smallholder, subsistence-oriented farming is the main source of food and income. Productivity remains low and natural disasters (floods, droughts, and cyclones) pose an additional, recurring threat. The period from December to March is referred to as the hunger season, when food supplies from the last harvest dwindle and the next harvest is not yet ready. During this period, prices in local markets rise, household purchasing power is diminished, and opportunities for earning wages for labor or engaging in small commerce are limited.

Located along the northeast coast, Nampula is the largest province of Mozambique, with an estimated population of close to four million

people.¹ Half of children under the age of five are chronically malnourished (or stunted), 9% acutely malnourished (wasted), and 28% underweight.²

Food security is the condition where all people at all times have access to sufficient safe and nutritious food to enable an active and healthy lifestyle.³ It has been identified as an essential component of optimum child nutrition and development.

Description of Activities

The STRIVE Mozambique project promoted and facilitated the formation of VSL groups and rotating shared labor schemes called *Ajuda Mutua* (AM). These activities were implemented alongside *Segurança Alimentar de Nutrição e Agricultura* (SANA), a USAID Title II food security program addressing nutrition, agriculture, and disaster risk reduction. VSLs are self-managed and -capitalized microfinance programs, in which members save in regular cycles and can borrow from the pooled savings, repaying with interest. At the end of each cycle, accumulated savings and interest from loans are shared out among members in proportion to each member's deposits.

Under AM, groups of households came together on a rotating basis to work on each family's land, or conduct another activity of their choice. This strategy offers a system of pooled labor that enables households to work a larger plot of land, build or improve houses or farm

structures, or engage in other tasks too labor-intensive for one family.

Participation in VSL and AM was meant to increase the resources available to households to acquire food through production, purchase, or exchange with other families. This could, in turn, improve food availability and access and lead to a more diverse diet, thereby improving child nutritional outcomes.

Eight of Nampula's 18 districts were intentionally selected to form pairs that were similar with respect to distance from the province's capital, economic performance, rainfalls, and market activities. The four pairs were randomly assigned to receive one of three interventions (VSL, AM, VSL+AM) or no intervention (control). Participation was voluntary, and households self-selected into groups.

From 2009-2012, STRIVE facilitated 583 unique VSLs, totaling 12,300 participants. The average profit per person per cycle was \$8 and the average savings \$30. The project participants' self-reported income ranged at baseline in 2009 from \$63 to \$85 annual per capita income, and that increased to \$118 to \$128 three years later. There were 11,600 participants under AM.

Evaluation, Learning Agenda, and Results

STRIVE aimed to answer the following research questions:

- Will VSL and AM increase household economic stability?
- Will children in a more economically stable household receive better nutrition?

To answer those questions, a prospective study was conducted whereby pre- and post-intervention data were collected from a sample of 1,476 households across districts in August 2009 and August 2012. To provide a deeper understanding of the reasons why households reached or did not reach expected outcomes, in-depth interviews (IDIs) were also conducted

¹ Mozambique Instituto Nacional de Estatística (2007). Mozambique third population and housing census. Maputo, Mozambique.

² Araujo, S. N., A. Dade, et al. (2009). Final report of the multiple indicator cluster survey 2008. Maputo, Mozambique, National Statistics Institute.

³ UNICEF (1990). Strategy for improved nutrition of children and women in developing countries. A UNICEF policy review. New York, NY, UNICEF.

with 36 VSL and 36 VSL+AM participants from two districts in November and December 2012.

Economic Outcomes

STRIVE compared economic outcomes between program participants and households in control areas in terms of changes in income and assets over time. Income was measured as the total household income per capita; assets included toilets, zinc roof panels, and aluminum pots. All three program types (VSL, AM, VSL+AM) had a statistically significant, positive effect on income and assets. Survey data indicate that VSL and AM participation led to increases in agricultural production and involvement in more profitable activities such as investment in high value crops. Notably, changes in assets included improved toilets and housing materials, which can both help protect child health.

IDIs provide additional context on some of the possible drivers behind these changes. Though share-out money was also applied towards other purchases, increasing farm production and purchasing assets were common investments. Moreover, VSL participants used loans to invest in business and agriculture (more often in business), though several participants expressed hesitation about taking loans due to fear of default.

In VSL+AM communities, collaboration through AM increased access to labor, which participants linked to improved production. Several participants described depositing cash from agricultural sales in VSLs, leading to larger savings and return on investment.

In addition, IDI data suggest that VSL and AM offered mechanisms to cope with shocks through both loans and social support. While it is common to offer support and share food among communities when facing shocks, as well as during the hungry season, participation in program activities, and in particular in AM, may have strengthened these norms, as it teaches a “spirit of cooperation.”

Food Security and Nutrition Outcomes

On the nutrition side, the analysis focused on household food security and child nutrition. At the household level, months of food sufficiency, household and child dietary diversity scores, and child anthropometric measures.

Household Level

In the survey, key indicators emphasized aspects of food availability and access. Months of food sufficiency (self-reported number of months during which everybody in the household had enough to eat in the year preceding the survey) increased for participants in all three interventions (VSL, AM, and VSL+AM), and the effects were statistically significant. Each intervention arm increased the overall amount of food available to participant households.

In addition to greater access to food, the range of food types a household consumes is also important. The evaluation examined a modified version of the household dietary diversity score (HDDS), which measured the number of different food groups consumed in the household on the day prior to the survey. The HDDS increased for VSL+AM households and for control households; however, the increase was smaller for the VSL+AM group. The difference in increase between the two groups was statistically significant. There was no observed impact of participation in VSL only.

IDI data supplement these findings. Most participants reported not growing enough food to feed their families at all times, yet appeared self-sufficient in staples until the hunger season. VSL share-outs were typically timed to align with the hunger season, providing timely access to cash to support food purchases at this juncture.

Participants recognized and appreciated the benefits of participation – faster and easier access to cash along with mechanisms for support, such as loans and VSL social funds. However, program participation did not appear to be sufficient to support a more nutritious diet. Since cash is scarce, participants were motivated to supply their diet from their own production as much as possible. About a quarter of

IDI participants said they lacked enough money to afford food to supplement or vary their staple diet.

Child Level

Key indicators derived from survey responses included *individual dietary diversity score* (IDDS), measuring the number of food groups consumed by up to three children under the age of 5 per household, and Z-scores of weight-for-age calculated using the 2006 WHO child growth standards as reference population.

VSL participation showed a statistically significant positive impact, increasing the IDDS by almost a full food group compared to control households. There was an increase in trend for VSL+AM households but no statistically significant effect. The average z-score of weight-for-age increased between baseline and endline; however, there was no observed impact of program participation.

IDIs showed concern for and some knowledge about children's nutritional needs among parents. Roughly half of participants bought special foods for children, such as bread or biscuits, fruits, or milk. A third also said they fed young children differently from adults and older children in order to strengthen them or because some foods were not appropriate. However, parents often mentioned challenges in feeding their children, including lack of money for purchases and large family size.

Conclusion

Overall, all three interventions (VSL, AM, VSL+AM) had a positive effect on income and assets. On the nutrition side, all three program types showed a positive effect on access to food; however, results were mixed in terms of their effects on households' ability to diversify their diets. AM participation appears to support increases in agricultural productivity and is an easy and manageable activity for poor households with few assets and no regular cash-flow. VSL appears to effectively help households close acute gaps in short-term cash needs – and, in this case, address some of the food

shortage in the hunger season and provide cash to cope with shocks. However, lump sums do not address the need for regular increased cash flow to buy nutritious foods day-to-day.

Food security is a complex problem that needs to be addressed over a substantial timeframe to achieve and sustain improvements. The STRIVE Mozambique experience suggests that economic strengthening interventions are an important, but not sufficient, aspect of addressing the issue. Future research is needed to identify appropriate complementary interventions for improved nutritional benefits for children, ideally as part of comprehensive multi-sectoral strategies at multiple levels, from children to households and their supporting environment.